

Actualizing the Goals of Environmental Education in Nigeria

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Abstract

With the ultimate aim of aiding citizens of Nigeria in becoming environmentally knowledgeable and above all skilled and dedicated citizens who are willing to work individually and collectively towards achieving or maintaining a dynamic equilibrium between quality of life and that of the environment, this raises the pertinent role of environmental education (EE) in actualizing such goal. Thus this article revealed the evolution of EE in Nigeria starting from the British colonial era; described the place of EE in the Nigeria curriculum; the infusion strategy in blending environmental education into the curriculum and the pathway in achieving the goals of EE in the country. Therefore, the researcher reiterated and reignited the focus of EE in the country among the key stakeholders in order to ensure the goals and objectives of EE are effectively achieved.

Keywords: Environmental Education, aesthetic, eco-friendly

Introduction

It is worthy of note that planet earth is remarkably prolific, hospitable and the most unique world in the universe as far as we know compared to the conditions faced on the other planets in our solar system. For instance, the temperature of earth is mild and relatively constant, plentiful supplies of clean air, freshwater, fertile soils which are regenerated endlessly and spontaneously by biogeochemical cycles and biological communities (Cunningham & Cunningham, 2006). In furtherance of this the most amazing feature of earth is its biological diversity especially with the multitude of aesthetic species which help sustain a habitable environment, create complex and interrelated communities that ensure the balance in the ecosystem. Meanwhile, this magnificent planet has been created perfectly to foster the existence of all creatures on earth including man. But as a result of man desire to dominate and control the natural environment to suit his interest led to imbalance in the various processes in the ecosystem. Consequently, glaring evidences exit around us in the world today of the effects of long years of negative interferences with the environment which are revealed in the unpredictable climatic conditions; flooding; rise in temperature, depletion of ozone layer; urban decay; drought amongst others.

Nigeria is not exempted from such environmental crisis and the effects faced in the world today. The country is already experience a high population density as the population is more than 120 million, yielding an average density of more than 120 persons per square kilometer (Omofonmwan & Osa-Edoh, 2008). The interaction of these multitude of persons in the society leaves extraordinary mark on the environmental landscape in the country especially through the manifestation of some anti-environmental acts such as poaching, bush burning, overgrazing, land degradation, indiscriminate dumping of refuse, unplanned urban development, deforestation, gas flaring, creation of noise, overexploitation of natural resources and amongst others are prevalent in the country. However, various strategies had been proposed and implemented by the Nigeria government to curb these environmental crisis and some of the strategies include abatement measure, environmental legislation, environmental policies, afforestation, creating game reserves, nature parks , establishing the environmental sanitation day exercise and provision of task force on environmental sanitation in some states (Jekayinfa & Yusuf, 2008). Although these efforts have been effective in curbing some of these environmental problems, new problems are emanating due to the fact that the basis of these problems have not been resolved. According to Thathong (2012), most of these strategies focus on "end of the pipe line" control and treatment rather than prevention and thus have been unable to produce desirable result thus far. In this regard, these environmental crisis which requires more focus on prevention and resolving the issues from the root. Therefore this means that the source of these crises in the country is based on the knowledge, attitude and behavior of the general public towards nature. Thus in resolving such problems, special attention must be placed on increasing the knowledge of the populace and thereby creating a positive attitude and behavior toward the environment.

Hence Environmental Education (EE) has a significant role to play in creating such knowledge and positive attitude and behavior about the environment among the individuals in the society. As it helps enlighten individuals and give them greater insight into their own nature and the consequence of their actions. As education can help find novel ways of fostering positive attitude and attribute to overcome environmentally destructive behaviors (Thathong, 2012) thereby leading to the individual desire and willingness to take action for the environment.

However, in this study, the researcher seeks to assess the actualization of the goals of environmental education in Nigeria. This was done based on the following subheading such as tracing the historical development of environment education in Nigeria, the place of environmental education in Nigeria, Infusion

strategy of Environmental education and analysis on the pathway for individual to develop eco-friendly behavior through environmental education.

Historical development of Environmental Education in Nigeria

Environmental protection in Nigeria has long been established in the Nigeria laws and formal institutional structure in order to address the various environmental problems faced in the society. According to Adelegan (2006), the Nigeria's environmental protection efforts had existed since the British colonial rule in the 1900's through their by-laws. Some of these laws and regulations promulgated on environmental issues included criminal code of 1958 that controlled burial in houses thereby curbing issues of water pollution; public health act of 1958 which aimed to control the spread of disease, slaughtering of animals; forest ordinance of 1937 which lead to the establishment of various forest reserves in the country. These laws were noticed to be poorly implemented and enforced by the government then. Also during this era the education sector (schools) had some elements of environmental protection through the inclusion of environmental contents in biology in the schools during this colonial era. Although the environment studied were of the British society and not the local Nigerian environment. According to Ahoe (2011), it was not until the 1950's that the West Africa Examination Council developed a syllabus that was used in teaching biology in schools and this syllabus contained environmental contents such as soil conservation. Thereafter, environmental contents were taught in schools in form of hygiene and nature study in the 1960's in order to follow the emphasis of nature study as a subject in the international scene. Although nature study and hygiene were taught in Nigeria primary and secondary schools, the content was based on the happenings in British society.

Consequently, this instigated the establishment of a Science Based Programme now known as Science Education Program for Africa which was made relevant in the teaching of EE in Nigeria school based on the happening in the country (indigenous context). Giant strides were made in the 1970's especially with the international recognition and status given to the EE thereby acting as a catalyst for the significant development of EE during this period. Hence there was a curriculum revision effort which took off at the beginning of the 70's making way for the inclusion of more environmental education topics in the biology syllabus such as pollution and water conservation. After all these achievements recorded, more works were needed to be done to establish a solid foundation for environmental education in the country. Minimal awareness was observed among the populace in the country on the effect of pollution in the health of individuals especially in the 1970's when concern was shifted to oil pollution especially in the Niger Delta wetland of the country and this resulted in protest due to the economic and ecological damages caused by such pollution scenes. This leads to the establishment of the petroleum refining regulation act of 1974 (Adelegan, 2006). Meanwhile even with the protest and other efforts made to promote EE in the country, more effort was needed to create a solid root for the subject. This led to the establishment of the Nigerian Conservation Foundation (NCF) in 1982. The koko incident of 1988 where toxic waste was dumped in koko port in Delta State by a foreign revealed the poor rate of environmental literacy among the populace. This scenario resulted in the concerted effort by the NCF in 1988 to make the Federal government direct NERDC (now NERC) to infuse environmental education elements into the citizenship education review conference (Bosah, 2013). Thereafter, UNESCO sponsored a national workshop on the integration of EE elements in the national school curriculum and teacher programme. Accordingly, following the efforts by NCF to ensure EE in Nigeria curriculum, the National Conservation Education Strategy was developed which was adopted by the federal government.

Meanwhile, after this strategy was created, this lead to the establishment of the environmental education unit of the institute of education, University of Calabar through the collaborative efforts of NCF and WWF-UK (Ahoe, 2011). Thus making it the first higher institution in the country to establish EE unit and department created. Other Universities started contributing their quote to establishing scholars that would make environmental education goals to be effectively achieved. Hence, the University of Benin started an Environmental education program in 2007 under the defunct Department of Health, environmental education and human kinetics but now Health Safety and Environmental Education. Also the Lagos State University center for environment and science education focus on issues related to environmental management and environmental education (Ahoe, 2011). Various colleges of education also offer the course. All these higher institutions provides a feeling of hope to the sustenance of the environment in the country especially as they will help produce of environmentalist and educators with Bachelor's, Masters and Ph.D degrees with specialization in different environmental disciplines especially environmental education that will help improve EE in the country.

Place of environmental education in Nigeria education curriculum

The National Policy on Education stipulates a 6-3-3-4 structure in Nigeria which include six years primary, three years junior secondary, three years senior secondary and four year of higher education. The primary and junior secondary education constitutes basic education that is free and compulsory. The senior secondary level includes both an active curriculum provided in general secondary schools and other curriculum provided in technical

colleges and vocational centres. The National Environmental Education Curriculum which was based on the various career subjects and the ecological zones in Nigeria was developed by NERDC (now NERC) under the guidance from United Nations Development Program and UNESCO (Okukpon, 2008). The curriculum was approved in 1998 with its main focus on the designing and infusing EE objectives and strategies into the teaching of the various career subjects in the school system; developing learners values, skills and information base related to eco-friendliness through effective utilization of appropriate instructional materials; designing appropriate learning experiences for the learners at every instructional encounter and motivate learners to maximize the learning opportunities involving first hand interactions (Okukpon, 2008). In furtherance of this, it can be deduced that the main goal to be achieved from this curriculum is creating an environmental sustainable condition in the society by improving the environmental literacy rate of her citizens. This is done by motivating and informing citizens on how to apply their skills, commitments, positive attitude and adequate knowledge to identify, solve and prevent environmental problems faced now and perceived in the future.

However, in accordance with the focus and ultimate goal of the EE curriculum in Nigeria, four themes made up the anchor of this curriculum in the country and the themes include

1. ecological foundation
2. Human environment and development
3. Environmental change and impact
4. Sustainable development

Thus these themes are incorporated into the various subjects in the primary and secondary school level. EE is built into the content of the already established subjects in the primary and secondary level of education. The major subjects containing EE content and themes are stated below based on the various levels of education in the country

1. Primary school: Mathematics, social studies, science, English language, Islamic religious studies and Christian religious studies
2. Junior Secondary: Social studies, agriculture, introductory technology, integrated science, home economics, business studies, mathematics and English language
3. Senior secondary: Mathematics, English language, home economics, clothing and textile, food and nutrition, Christian religious studies, history, geography, economics, home management, biology, physics, chemistry.

Infusion strategy of EE in Nigeria Education system

According to Okukpon (2008), the infusion strategy comprises of multidisciplinary integrated, interdisciplinary and cross-curricular approach. This strategy conforms to the interdisciplinary approach emphasized by the Belgrade Charter. Although some scholars such as Adedoyin (1988) fault the integrated approach of teaching EE in primary and secondary schools as he stated that EE should be taught as a separate taught as a separate subject in school. While Adebisi and Olawapo (1977) recommended integrated single subject approach to social studies curriculum in the country. Also Jakayinfa and Yusuf (2004) and Adeyoyin (1998) recommended an integrated approach for the teaching of EE. But for this study, the researcher recommends an integrated approach in Primary and Secondary school now especially as EE is still in the infancy stage and lacks enough man power. Accordingly, Jekenyinfa and Olawepo (1998) reported that teachers have low knowledge of the basic concept of EE thereby affecting its implementation, meanwhile it is advised that in the next five years, efforts should be made to establish EE as a separate or distinct subject in schools in order to ensure the effect creation of environmental literate citizens or alternatively, it may be the insertion of new courses distinctive from other existing subjects into the curriculum. Despite the efforts in creating this EE curriculum by NERDC, Anijah-Obi, Eneji and Ubom (2012) reported that such efforts has yet to materialize into anything concrete in the country. That is the curriculum is yet to be fully operational in schools thereby denying generations of Nigerians the opportunity of being grounded in EE.

Consequently, in tertiary institutions, EE is taught as a distinct or specialized program in some Nigeria Universities and colleges of Education. Although the course in majority of these tertiary institutions is at the infancy stage, but with the tenacity and zeal of some of these Universities especially in the aspect of research, this shows that there is a silver lining in the dark cloud for Nigeria Environmental Education.

Pathway in actualizing eco-friendly behavior in Nigeria through environmental education

Globally, environmental educators are increasingly challenged by the government, funders and their audience to showcase their worth, accountability and effective performance. Although in developing countries, the environmental education programs are faced with dearth of funds and motivations. Notwithstanding these constraints, the programs has a role to play in ensuring that the citizens in the country especially the younger generation are environmentally literate as EE is concerned with creating awareness and understanding of the relationship between man and their environment. That is the program increases awareness of human complexity

in environmental decline and the involvement of public values that stressed the quality of human experience and hence of the human environment.

In actualizing these goals, a lot of work done on Environmental Education within the last quarter century has been guided by the Belgrade Charter in 1975 and Tbilisi declaration of 1978 (Thompson & Hoffman, 2003) especially as the objectives and principles of EE was created during this period. However, eco-friendliness can be actualized in Nigeria through EE as the program helps to create a society of knowledgeable empowered citizens who would engage in positive environment actions to protect the natural ecosystem, wilderness and other nature reserves. This can be achieved as EE help in creating awareness of and understanding about the ecosystem and some of the ecosystem and some of the conservation issues that surrounds nature. Thereafter, the belief about how the world works especially the interaction of various species (biological diversity) in the ecosystem. Thus these beliefs are then grouped with some emotional tendencies to form attitude. Attitudes are therefore reflected through the opinion the individual or audience showcases during nature discussion in the society. Furthermore, values are formed by a combination of closely aligned attitudes towards nature. According to Thompson and Hoffman (2003), values can be formed towards the wildlife as the plants and animal have intrinsic right to live and exist, appreciation of the various sacred grooves, amongst others.

Consequently, after actualizing positive values into the mind of the individuals or society towards nature, the next and final major component to inculcate on the audience is environmental behavior. It involves the ability to change the behavior of individuals in order to make their behavior to be consistent with their values towards the ecosystem or nature, because an individual may have awareness towards the importance of nature and value nature but may do nothing to protect it. This behavior change is difficult to achieve because in the world today, acceptance of the gap between values and behavior has reached epidemic proportion (Thompson & Hoffman, 2003). This is why environmental psychologists are concurring with the notion that the cognitive dissonance that results when people live a life where their behavior does not match their values. Although with this difficulty, environmental educators have the ability to make their audience active or gain environmental behavior by providing appropriate reinforcement for their environmental actions thereby creating a strong sense of motivation among the audience.

Therefore, some other critical ways in which environmental education can effectively help in creating eco-friendly behavior in both formal and non formal education system among the citizens include emphasizing the need for environmental educators to act as sensitive role model for the environment; teach local and global environmentally significant ecological concepts; teach in dept knowledge of environmental issues; provide a curriculum that will teach learners the skill of issues analysis and investigation as well as provide the time needed for application of these skills (Marine Education Society of Australasia, 2003); develop an internal locus of control among the evidence by providing an instructional setting that increases learners expectancy of reinforcement for acting in responsible way (MESA, 2003) and learners should be given the opportunity to have positive experiences through non formal outdoor settings over long period of time. Furthermore, one of the known scholars of EE, William Stapp asserted that for EE to achieve its greatest impact, it must provide factual information which leads to understanding of the total biophysical environment; develop a concern for environmental quality which will motivate citizens to work toward solutions to environmental problems and inform citizens as to how they can play an effective role in achieving the goals derived from their attitude towards the environment.

Conclusion and recommendation

Actualizing the goals of environmental education in Nigeria would enable the general public possess skill, knowledge, motivation and attitude in tackling various environmental issues and problems or working to improve the environmental setting thereby making them engage in environmental actions such as persuasion which involves education and lobbying their members of the public; when their consumer habit is changed towards eco-friendliness; embark in actions that will influence political decisions; engage in actions to restore, remediate or improve a natural area amongst other actions.

Thus the researcher propose that the core subjects that contain lots of environmental content such as geography, biology, social studies, civic education, agriculture, health education amongst others should be made compulsory in primary and secondary schools. Also environmental education should also be taught as general studies for students in tertiary institutions across the country. And Nongovernmental organization and government agencies should show more will in fostering or increasing environmental awareness in the country

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